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**NO. OF PAGES** (including this page): 9

**TO:** I. Ouspenski

**Art Unit:** 1644

**FAX:** (703) 872-9306

**FROM:** Sheela Mohan-Peterson

**DATE:** October 14, 2004

**RE:** Docket No.: DX0936KB

USSN: 10/086,972

Filed: 03/01/2002

Title: NOVEL USES OF MAMMALIAN OX2 PROTEIN AND RELATED REAGENTS

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Documents attached:

|    |                                     |         |
|----|-------------------------------------|---------|
| 1. | Transmittal                         | 1 page  |
| 2. | Response to Restriction Requirement | 7 pages |

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Melanie Lyons

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PTO/SB/21 (03-03)

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| <b>TRANSMITTAL FORM</b><br><i>(to be used for all correspondence after initial filing)</i> |   | Application Number<br>10/086,972       |
|  |   | Filing Date<br>03/01/2002              |
|  |   | First Named Inventor<br>Robert M. HOEK |
|  |   | Art Unit<br>1644                       |
|  |   | Examiner Name<br>I. Ouspenski          |
| Total Number of Pages in This Submission   | 9 | Attorney Docket Number<br>DX0936KB     |

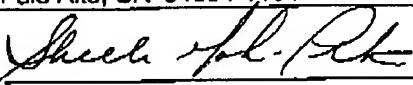
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| <input type="checkbox"/> After Final   | <input type="checkbox"/> Petition to Convert to a Provisional Application               | <input type="checkbox"/> Proprietary Information   |
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| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 |   |  |

**Remarks:**

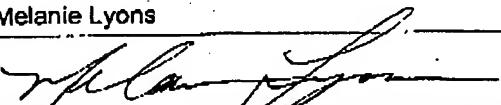
1. Response to Restriction Requirement (7 pages)
2. Fax Transmittal Sheet (1 page)

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

|                    |  |  |  |
|--------------------|--|--|--|
| Firm or Individual | Sheela Mohan-Peterson, Reg. No. 41,201<br>DNAX Research, Inc.<br>901 California Ave.<br>Palo Alto, CA 94304-1104 |  |  |
| Signature          |                               |  |  |
| Date               | 14-Oct-2004  |  |  |

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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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Attorney Docket: DX0936KB

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re application of:

Robert M. HOEK, et al.

Application No.: 10/086,972

Filed: March 1, 2002

For: NOVEL USES OF MAMMALIAN  
OX2 PROTEIN AND RELATED  
REAGENTS

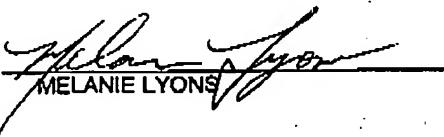
Examiner: I. Ouspenski

Art Unit: 1644

Conf. No.: 1945

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by:

  
MELANIE LYONS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

RESPONSE TO RESTRICTION REQUIREMENT

Sir:

This is a response to the Restriction Requirement, dated September 17, 2004.

I. Restriction Requirement

The Examiner restricted the application into 26 separate inventions:

- I. Claims 1, 4-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has an inflammatory condition, classified in Class 514, subclass 21.
- II. Claims 1, 4-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has an infective condition, classified in Class 514, subclass 21.
- III. Claims 1, 4 - 8, 10, and 16 - 18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has a leukoproliferative condition, classified in Class 514, subclass 21.
- IV. Claims 1, 4-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has a neurodegenerative condition, classified in Class 514, subclass 21.

- V. Claims 1, 4-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has a posttraumatic condition, classified in Class 514, subclass 21.
- VI. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has autoimmunity, classified in Class 514, subclass 21.
- VII. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has atherosclerosis, classified in Class 514, subclass 21.
- VIII. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has delayed hypersensitivities, classified in Class 514, subclass 21.
- IX. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has skin grafting or a transplant, classified in Class 514, subclass 21.
- X. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has spinal injury, classified in Class 514, subclass 21.
- XI. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has stroke, classified in Class 514, subclass 21.
- XII. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has ischemia, classified in Class 514, subclass 21.
- XIII. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has an inflammatory condition, classified in Class 424, subclass 130.1.
- XIV. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has an infective condition, classified in Class 424, subclass 130.1.
- XV. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has a leukoproliferative condition, classified in Class 424, subclass 130.1.
- XVI. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has a neurodegenerative condition, classified in Class 424, subclass 130.1.

- XVII. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has a post-traumatic condition, classified in Class 424, subclass 130.1.
- XVIII. Claims 1-3, 5, 11-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has wound healing, classified in Class 424, subclass 130.1.
- XIX. Claims 1-3, 5, 11-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has clot formation, classified in Class 424, subclass 130.1.
- XX. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutein of OX2, and where the animal has an inflammatory condition, classified in Class 424, subclass 9.322.
- XXI. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutein of OX2, and where the animal has an infective condition, classified in Class 424, subclass 9.322.
- XXII. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutein of OX2, and where the animal has a leukoproliferative condition, classified in Class 424, subclass 9.322.
- XXIII. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutein of OX2, and where the animal has a neurodegenerative condition, classified in Class 424, subclass 9.322.
- XXIV. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutein of OX2, and where the animal has a post-traumatic condition, classified in Class 424, subclass 9.322.
- XXV. Claims 1-3, 5, 11-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutein of OX2, and where the animal has wound healing, classified in Class 424, subclass 9.322.
- XXVI. Claims 1-3, 5, 11-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutein of OX2, and where the animal has clot formation, classified in Class 424, subclass 9.322.

## II. Species Election Requirements

The Examiner further required several elections of species dependent upon the Group elected by Applicants.

A. If one of Groups I-XXVI is chosen, an election of one of the following species is required: neural tissue; lymphoid tissue; myeloid tissue; pancreas; gastrointestinal tissue; thyroid tissue; muscle tissue; skin; or collagenous tissue.

B. If one of Groups I-XII is chosen, an election of one of the following species is required: tissue specific autoimmunity; rheumatoid arthritis; multiple sclerosis; vasculitis.

C. If one of Groups I-XII is chosen, an election of one the following species is required: an anti-inflammatory cytokine agonist; an anti-inflammatory cytokine antagonist; an analgesic; an anti-inflammatory agent; or a steroid.

D. If one of Groups XIII-XXVI is chosen, an election of one of the following species is required: an angiogenic factor; a growth factor (FGF); a growth factor (PDGF); an antibiotic; or a clotting factor.

## III. Restriction and Species Election

Applicants provisionally elect Group IV, Claims 1, 4-10, and 16-18 whose claims are drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has a neurodegenerative condition, classified in class 514 , subclass 21, for example, as discussed in the Office Action.

The Applicants further elect the following species as required by the Examiner:

- A. Neural tissue;
- B. Multiple sclerosis; and
- C. A steroid.